

# JOURNAL SUPPLEMENT

Vol. 38, No. 1

JANUARY, 1959

THE INSTITUTION OF PRODUCTION ENGINEERS, 10 CHESTERFIELD STREET, MAYFAIR, LONDON, W.1

## SEVENTH CONFERENCE ON PROBLEMS OF AIRCRAFT PRODUCTION

(promoted by the Southampton Section of the Institution)

at the

**UNIVERSITY OF SOUTHAMPTON**

(by kind permission of the Vice-Chancellor)

**Thursday, 16th April and Friday, 17th April, 1959**

**Theme: "The Aircraft Industry - A National Asset"**

### PROGRAMME

The Conference will commence with the official luncheon on Thursday, 16th April, after which the 1959 Lord Sempill Paper will be presented by **Lord Douglas of Kirtleside**, G.C.B., M.C., D.F.C., Chairman of British European Airways, whose subject will be "THE OPERATOR".

Other speakers will be:

**Mr. Peter Masfield**, M.A., F.R.Ae.S., M.Inst.T., F.I.Ae.S., C.I.Mech.E., Managing Director, Bristol Aircraft Ltd., who will talk on "THE INDUSTRY"; and

**Mr. S. P. Woodley**, M.B.E., General Manager, Vickers-Armstrongs Aircraft Ltd., who will discuss "THE IMPACT ON OTHER INDUSTRIES".

The final Session of the Conference will take the form of an open Forum when the three principal speakers, together with **Sir Arnold Hall**, M.A., F.R.S., A.C.G.I., F.R.Ae.S., President of the Royal Aeronautical Society, and Technical Director of the Hawker Siddeley Group; and **Mr. Eric Turner**, Chairman and Managing Director, Blackburn & General Aircraft Ltd., will discuss the importance of the aircraft industry in the national economy.

The Conference will end at midday on Friday, 17th April, 1959.

The Conference fee, inclusive of prints of Papers, luncheon and light refreshments, is **£4**. Applications should be made on the form overleaf. Places will be allotted in strict order on receipt of applications, and priority will be given to members of the Institution who apply before **Monday, 23rd March, 1959**.

**CLOSING DATE FOR APPLICATIONS — MONDAY, 30th MARCH, 1959**

To : The Secretary,  
The Institution of Production Engineers,  
10 Chesterfield Street,  
Mayfair, London, W.1.

DATE RECEIVED AT HEAD OFFICE

MEMBER / NON-MEMBER

## SEVENTH AIRCRAFT PRODUCTION CONFERENCE

1. NAME.....
2. GRADE OF MEMBERSHIP.....
3. HONOURS, DEGREES, OTHER QUALIFICATIONS.....
4. ADDRESS.....
5. NAME OF COMPANY.....
6. POSITION HELD.....

N.B.—If more than ONE ticket is required, please supply information 1 to 6 on a separate sheet of paper for each ticket applied for.

Please send me ..... ticket(s) at 80/- each, for which I enclose remittance for £.....

Signature.....

Date.....

*Please note that cheques, etc., should be made payable to "The Institution of Production Engineers". Receipts will not be issued. Tickets and joining instructions will be sent in good time.*

## **THE 1958 VISCOUNT NUFFIELD PAPER**

Members are advised that the 1958 Viscount Nuffield Paper will be presented at the University of Birmingham on **Wednesday, 11th March, 1959**. The speaker will be **Dr. N. P. Inglis**, Research Director of the Metals Division, Imperial Chemical Industries Ltd., who will take as his subject :-

**"THE PRODUCTION, FABRICATION, PROPERTIES AND USES OF SOME OF THE NEWER METALS"**

The Paper will be followed by open discussion.

Admission to the meeting will be by ticket only, which may be obtained from: The Secretary, The Institution of Production Engineers, 10 Chesterfield Street, Mayfair, London, W.1, using the form of application overleaf.

## **HALIFAX AND HUDDERSFIELD SECTION DINNER - DANCE**

The Annual Dinner-Dance of the Halifax and Huddersfield Section of the Institution will take place on **Friday, 27th February, 1959**, at the **White Swan Hotel, Halifax (7 p.m. for 7.30 p.m.)**. Enquiries regarding tickets should be made to: The Social Secretary, Miss N. E. Bottom, Hopkinsons Ltd., Huddersfield.

## **"DESIGN OF EQUIPMENT FOR HUMAN USE"**

The Department of Work Study and Staff Training of the Engineering and Allied Employers West of England Association announce a two-week appreciation course on "The Design of Equipment for Human Use", which will be of particular interest to companies manufacturing or using complex equipment, such as machine tools, control desks, instrument panels, etc., which have to be worked or controlled by human operators. It is the object of the course to acquaint designers and methods engineers with the basic information now available on the physical and mental capacities of the human operator, and to relate it to the design of industrial equipment.

The course, which is the first of its kind in this country, will run from **16th - 27th February, 1959**, and the fee is **£40** (exclusive of accommodation), increased by 20% for non-members of the association. Full particulars may be obtained from the Department of Work Study and Staff Training, Engineering and Allied Employers West of England Association, Engineers' House, The Promenade, Clifton Down, Bristol, 8.

To : The Secretary,  
The Institution of Production Engineers,  
10 Chesterfield Street,  
Mayfair, London, W.1.

**THE 1958 VISCOUNT NUFFIELD PAPER**  
at the University of Birmingham, 11th March, 1959

Please send me, when available. .... tickets of admission to the above meeting.

NAME.....  
(Block letters please)

ADDRESS.....

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**REGIONAL MEETING**

**EASTERN REGION**

**7.30 p.m. January 16th**

Golden Lion Hotel, Cornhill, Ipswich.

"Machine Tool Development in the Soviet Union" by N. Stubbs, M.B.E., B.Sc.(Hons)

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**SECTION MEETINGS**

Visitors Tickets may be obtained from Section Honorary Secretaries

**JANUARY, 1959**

**EAST & WEST RIDINGS REGION**

**Doncaster** 7 p.m. January 13th  
Technical College Hall, Doncaster.  
"Pressure Die Casting" by R. D. Bacon, Zinc Development  
Association.  
**Leeds** 7 p.m. January 12th  
Hotel Metropole, Leeds.  
"Ceramic Cutting Tools" by G. R. Connor, Grad.I.Prod.E.  
**Leeds Graduate** 9.30 a.m. January 17th  
Visit to Messrs. Slazengers Ltd., Horbury, Wakefield.  
Rendezvous: Main Entrance Slazengers Ltd.  
**Sheffield** 6.30 p.m. January 12th  
Grand Hotel, Sheffield.  
"Non-Destructive Testing" by Paul Fox.

**MIDLANDS REGION**

**Birmingham Graduate** 7 p.m. January 21st  
College of Technology, Gosta Green, Birmingham.  
"Technology & Humanism" by The Rt. Hon. The Earl of  
Halsbury, F.R.I.C., F.Inst.P., M.I.Prod.E. (President of the  
Institution).  
Joint Meeting with the Senior Section.

**Birmingham Graduate** January 24th  
Morning Visit to Birmingham Post and Gazette Office.  
Newspaper Production.

**Coventry** 7.15 p.m. January 19th  
Craven Arms, High Street, Coventry.  
"The Approach to the Use of Unit Heads" by J. Hebble-  
thwaite, A.M.I.Mech.E.

**Shrewsbury** 7.30 p.m. January 28th  
Shrewsbury Technical College, Abbey Foregate, Shrewsbury.  
"Impact Extrusion and Cold Flow Pressing of Ferrous and  
Non-Ferrous Metals" by H. W. Byles.

**Wolverhampton Graduate** 7 p.m. January 14th  
Wolverhampton & Staffs. College of Technology, Wulfruna  
Street, Wolverhampton.  
"High Speed Machining in the Aircraft Industry" by S.  
Radcliffe, B.Sc.(Tech.), A.M.I.Mech.E., M.I.Prod.E.

**Wolverhampton Graduate** January 20th (Evening)  
Works Visit to Stewarts & Lloyds Ltd.

**Worcester** 7.30 p.m. January 21st  
Star Hotel, Worcester.  
"Surface Finish" by R. E. Reason, A.R.C.S.

## NORTH MIDLANDS REGION

**Derby** 7 p.m. January 19th  
 Louis Room, St. James's Restaurant, St. James's Street, Derby.  
 "Materials Handling as Related to Batch Production" by F. E. Rattlidge, A.M.I.Prod.E. (Chairman, Materials Handling Group Committee).  
**Lincoln** 7.30 p.m. January 29th  
 Ruston Club, Lincoln.  
 "Designing for Production" by A. P. Peat, M.I.Prod.E.  
**Peterborough** 7.30 p.m. January 21st  
 Conference Room, Peterscourt, Peterborough.  
 "Some Impressions of Modern Russia" by T. W. Wilcox, M.I.E.E., M.Amer.I.E.E.  
 This is a joint meeting with the Peterborough Section of the Institute of Costs and Works Accountants.

## NORTH WESTERN REGION

**Liverpool** 7.30 p.m. January 14th  
 Exchange Hotel, Tithebarn Street, Liverpool, 2.  
 "B. A. Williams Award Prize Papers" by Members of the Liverpool Graduate Section.  
 This will be a joint meeting with the Graduate Section.  
**Manchester** 7.15 p.m. January 26th  
 Reynold's Hall, Manchester College of Science & Technology, Sackville Street, Manchester.  
 "New Techniques & Improved Equipment in Cotton Mills" by E. G. Smalley.  
**Manchester Graduate** 7.15 p.m. January 19th  
 Reynold's Hall, Manchester College of Science & Technology, Sackville Street, Manchester.  
 "Modern Welding Processes" by H. Robert, M.I.Weld.  
**Preston** 7.30 p.m. January 14th  
 Accrington College of Further Education, Sandy Lane, Accrington.  
 "Inspection as an Aid to Production" by W. Maiden, A.M.I.Mech.E.  
**Stoke-on-Trent** 7.30 p.m. January 12th  
 Grand Hotel, Hanley, Stoke-on-Trent.  
 "Electronic Computer Control of Machine Tools" by H. Ogden, B.Sc.(Eng.), A.F.R.Ae.S., A.M.I.Prod.E.  
 The lecture will be illustrated with slides and film.

## NORTHERN REGION

**Newcastle-upon-Tyne** 7 p.m. January 19th  
 Rutherford College of Technology, Northumberland Road, Newcastle-upon-Tyne.  
 "Electronic Computers and the Production Engineer" by P. V. Ellis, A.C.I.I.  
**Newcastle-upon-Tyne** January 7th  
 Annual Dinner-Dance at the Old Assembly Rooms, Newcastle-upon-Tyne.  
**Newcastle-upon-Tyne Graduate** 10 a.m. January 17th  
 Visit to Quasi-Arc Ltd., Team Valley, Gateshead.  
**Tees-Side** 7 p.m. January 6th  
 Cleveland Scientific & Technical Institution, Corporation Road, Middlesbrough.  
 "Technology and Humanism" by The Rt. Hon. The Earl of Halsbury, F.R.I.C., F.Inst.P., M.I.Prod.E. (President of the Institution).

## NORTHERN IRELAND REGION

**Northern Ireland** 7.30 p.m. January 22nd  
 The Kensington Hotel, College Square East, Belfast.  
 "How the Trade Union has Changed with Industrial Progress" by A. Boyd, Area Organiser for the National Council of Labour Colleges.

## SCOTTISH REGION

**Glasgow** 7.30 p.m. January 15th  
 Visit to The Production Department, The Royal College of Science and Technology, Glasgow.  
**Edinburgh** 7.30 p.m. January 21st  
 North British Hotel, Princes Street, Edinburgh.  
 A lecture on "Materials Handling—A Challenge to British Industry".  
 This is a joint meeting with the Institute of Materials Handling and anyone interested is cordially invited.

## SOUTH EASTERN REGION

**London** 7 p.m. January 15th  
 Royal Empire Society, Northumberland Avenue, Strand, London, W.C.2.  
 "Plastic Moulding Production" by L. H. Hayward, M.B.E.  
**London** 7 p.m. January 28th  
 Brighton Group.  
 Old Ship Hotel, Brighton.  
 "A Laboratory Technique for Precision Machine Tool Geometry" by W. H. Jaye, B.Sc(Eng.), A.M.I.Prod.E.  
**London Graduate** 7.15 p.m. January 21st  
 10 Chesterfield Street, Mayfair, London, W.1.  
 General Title "Some Aspects of Automatic Control"  
 (a) "The Techniques of Control" by D. L. Davies, B.Sc., A.M.I.E.E.  
 (b) "Sensing Elements" by H. R. Hindley, B.Sc., F.Inst.P.  
 (c) "Applications in the Shop" by J. C. Wells.  
**London Graduate** January 27th  
 Half day visit to Bell Punch Co. Ltd., Uxbridge, Middx.  
**Luton Graduate** January 15th  
 Whole day Factory Visit to Vauxhall Motors, Luton.  
**Rochester** 7.30 p.m. January 22nd  
 Old Palace, Maidstone.  
 "Making Jigs, Tools & Moulds in Epoxide Plastics" by P. G. Pentz, B.Sc.

## SOUTHERN REGION

**Oxford** 7.30 p.m. January 20th  
 Town Hall, Oxford.  
 "Domestic Engineering Products" by H. J. Furness (President of I.C.W.A.).  
**Southampton** 7.15 p.m. January 15th  
 Polygon Hotel, Southampton.  
 "Manufacturing Techniques on the A.W.A. Argosy Aircraft" by R. A. Courtman and A. W. Menzies, O.B.E.

## SOUTH WESTERN REGION

**Gloucester** 7.30 p.m. January 21st  
 The Gloucester Technical College, Brunswick Road, Gloucester.  
 "The New Tool for the Production Engineer—Spark Discharge" by A. D. P. Tallents, A.M.I.Prod.E.  
**Western** 7.30 p.m. January 14th  
 University of Bristol.  
 "A Survey of Operational Research Activities" by Dr. N. A. Dudley, Ph.D., B.Sc.(Econ.) Hons., M.I.Prod.E.  
**Western Graduate** 7.30 p.m. January 21st  
 Royal Hotel, College Green, Bristol.  
 "Cold Heading" by A. R. Wiseman, B.A., A.M.I.Mech.E.

## WALES REGION

**Cardiff** 7 p.m. January 23rd  
 South Wales Institute of Engineers, Park Place, Cardiff.  
 "Plant Utilisation & Lower Costs" by S. J. Watkins, F.C.W.A. (Chairman, South Wales Branch, Institute of Cost and Works Accountants).  
 Joint Meeting with South Wales Branch, Institute of Cost and Works Accountants.  
**Swansea** 7 p.m. January 21st  
 Central Library, Swansea.  
 "Photography in Engineering" by P. H. Herbert.

## FEBRUARY 2nd—10th

### EAST & WEST RIDINGS REGION

**Doncaster** 7 p.m. February 10th  
 Technical College Hall, Doncaster.  
 "The Manufacture of Diesel Electric Locomotives" by E. Littler, Senior Designer.  
**Halifax & Huddersfield** 7 p.m. February 10th  
 Whiteley's Cafe, Westgate, Huddersfield.  
 Annual General Meeting.  
 "The Heart of Management" at 7.30 p.m. by A. E. Clifford, A.M.I.E.E., A.M.I.Mech.E., A.M.Amer.I.E.E., M.I.Prod.E. (Section Chairman).  
**Leeds** 7 p.m. February 9th  
 Hotel Metropole, Leeds.  
 "The Design of Automatic Machine Tools for Electronic Control" by Dr. F. Koenigsberger, D.Sc., Dipl.Ing., M.I.Mech.E., M.I.Prod.E.



**Sheffield** 6.30 p.m. February 9th  
Grand Hotel, Sheffield.  
"Fuel & Refractories" by Dr. J. H. Chesters.

#### MIDLANDS

**Birmingham Graduate** 7 p.m. February 10th  
James Watt Memorial Institute, Great Charles Street, Birmingham.  
"The Construction & Development of Artificial Satellites".

**Coventry Graduate** February 2nd  
Lecture and Visit to Coventry Climax Ltd., Coventry.  
"Production Methods & Company History" by F. Cotton and G. Densham.

**Wolverhampton** 4 p.m. February 3rd  
Vono Limited, Tipton.  
"Modern Furniture Production".  
Combined Works visit and Lecture.

#### NORTH MIDLANDS REGION

**Nottingham** 7 p.m. February 4th  
The Reform Club, Victoria Street, Nottingham.  
"The Application of Accurate Measurement to Production Engineering" by Prof. J. Loxham, C.G.I.A., M.I.Mech.E., F.R.S.A., M.I.Prod.E.  
**Leicester** 7 p.m. for 7.30 p.m. February 7th  
Section Annual Dinner-Dance to be held at "The Kings Hall", Grand Hotel, Leicester.

#### NORTH WESTERN REGION

**Liverpool Graduate** 7.30 p.m. February 4th  
Radiant House, Bold Street, Liverpool, L.  
"Karakoran Himalayan Expedition" by K. J. Miller, B.Sc., G.I.Mech.E., Grad.I.Prod.E.

#### SCOTTISH REGION

**Dundee** 7.30 p.m. February 4th  
Royal Hotel, Union Street, Dundee.  
"Nylon for Engineers" by A. Clark.

## PRODUCTION APPOINTMENTS

**BULLETIN No. 64**  
**JANUARY 1959**

The last date for receiving material for insertion in the following month's bulletin is the 20th of each month, and cancellations cannot be accepted after this date. Correspondence should be addressed to: The Publications Department, The Institution of Production Engineers, 10 Chesterfield Street, Mayfair, London W.1 (Telephone: GROsvenor 5254).

The fee for insertion of particulars regarding each appointment is £4 4s. (up to 100 words) and £1 1s. for each additional 100 words or part thereof. The special rate per insertion for firms affiliated to the Institution, technical colleges and universities is £2 2s. for each appointment.

Advertisers are advised that better response is likely if, in addition to essential qualifications, the following information is given:—

(a) Location of appointment; (b) Status in the organisation and scope of promotion; (c) Salary range and age range. Advertisers are asked to advise the Institution when appointments are filled. The Institution reserves the right to refuse or withdraw any announcement and also to make any alteration in the wording to ensure conformity with the Institution standards. *Members interested in the following appointments should make application in accordance with the terms of notice. No correspondence can be undertaken by the Secretary other than the forwarding of replies to Box Nos.*

**Works Manager.** A leading North London small tool manufacturer invites applications for the position of Works Manager, B.Sc.(Eng.), A.M.I.Mech.E. Age 32 to 38, accustomed to controlling and co-ordinating personnel. Organising ability, sound knowledge of machine tool design, production methods and planning. Please write full details of education, qualifications, salary expected and experience (marked strictly confidential) to D. M. Watkins, Managing Director, The British Tap & Die Co. Ltd., Town Road, Edmonton, N.9.

**Technical Editor** required by rapidly expanding organisation in the East Midlands for new group of Journals covering many aspects of production and mechanical engineering. This appointment carries an excellent starting salary and offers considerable scope for development to a man with ability and energy. Superannuation scheme and pleasant surroundings. Send details of career and present salary to: Box No. 1812, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Technical Assistants.** Applications are invited from young engineers or technicians to assist in the development of an industrial engineering division. Applicants should have experience in dealing with the technical problems of operational analysis and methods as applied to one or all of the following:—Machine shops, fabricating and erection departments of a medium/heavy engineering industry. Qualifications—H.N.C.(Mech) minimum or equivalent. Age 25/35. Attractive and interesting appointments. Applications in writing with relevant details in confidence stating approximate salary required to: Personnel Manager, Ruston-Bucyrus Limited, Excavator Works, Lincoln.

**Methods and Work Study Engineer** required for progressive Company in West Riding of Yorkshire. Ability to evolve and promote schemes of productivity improvement and cost reduction in press and heat treatment shops essential. H.N.C. preferred. An early promotion would follow enthusiastic, intelligent efforts. Please send details in confidence to: Box No. 1816, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Production Engineer-Senior Executive.** Applications are invited for the post of Production Engineer to an engineering company in outer West London. A knowledge of heavy press and tooling plus experience of work study and cost investigation is required. Only men who have held the post of Chief Technical Officer to a large company need apply. Send full particulars stating age and salary required to: Box No. 1817, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Production Engineer.** A vacancy exists for a first-class production engineer on the engineering staff of a large aircraft company engaged in many aspects of precision engineering, including the manufacture of guided weapons and electronic equipment. The candidate to fill this position should be one with sound engineering knowledge coupled with initiative and imagination, and be capable of liaison with design teams to ensure the product design is maintained to maximum production standards and requirements. The applicant should be conversant with modern light engineering methods and production engineering as applied to economical production quantities of small precision mechanisms. Preference will be given to applicant with previous experience on the manufacture of gyro assemblies and servo mechanisms. This is an executive position and assistance with housing and removal expenses will be met by the Company. Write giving full details of career, technical qualifications and salary required, etc. to: Box No. 1818, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Time Study Engineer.** Fully qualified Time Study Engineer required. Excellent prospects for man with experience in light engineering. Monthly staff appointment. O.N.C. essential. Apply: Employment Officer, Lockheed Hydraulic Brake Co. Ltd., Tachbrook Road, Leamington Spa, Warwickshire.

**Production Engineer** required to take charge of pressed metal planning office and be responsible for estimating, method planning, tool design, material utilisation and rate fixing. The successful candidate must have had practical experience in a similar position in a Company producing pressings and fabrications for the automobile industry. Technical education should be to minimum of O.N.C. standard. Experience of work study techniques would be an advantage. Good conditions and prospects are offered to the right man for this responsible post. Apply to: Personnel Manager, The Projectile & Engineering Co. Ltd., Thessaly Road, London, S.W.8.

**Senior Work Study Engineer** required, with experience of formal method and time study on general purpose machining and steel fabrication, in batch production. This is a new appointment, so a good technical education is necessary in addition to specialist work study training. Salary in the region of £1,000 p.a. including bonus, with contributory superannuation and life assurance schemes. Reply with details of age, experience and salaries earned, and quoting ref. W.O.41, to: Personnel Officer, Priestman Brothers Limited, Hull.

**Production Planning Engineer; Development Engineer; Industrial Chemist.** Industrial Administration Ltd., acting on behalf of a client of international repute situated in the Home Counties, invite applications for the following posts: **Production Planning Engineer** responsible to the Works Director for the control of a department engaged in work study, method improvement, estimating, shop layout, tool and fixture design. The successful applicant will be expected to build up an efficient planning department to meet the requirements of the company's expansion plans and to accept responsibility for a small tool room. Applications are invited from engineers, aged 28-45, holding an H.N.C. in Mechanical Engineering or higher qualification, who have served a five-year apprenticeship in light or precision engineering and have at least five years' experience of production engineering applicable to high volume flow-line production. Drawing office and jig and tool design experience will be an added advantage. (Ref.: 28/121.) **Development Engineer** responsible to the Chief Development Engineer for the design, styling and making of prototypes of new products as well as for the improvement of existing designs. Applications are invited from engineers, aged 25-40, who have served a five-year apprenticeship and have experience of drawing office work and in a light tool room, instrument making or model shop. They should be capable of working on their own initiative to produce drawings, models and fixtures for prototype production of well styled products for the domestic appliance market. (Ref.: 28/122.) **Industrial Chemist** responsible to Works Director for investigating and conducting research into all environmental factors associated with the company's products. He will also be responsible for the development and control of manufacturing processes involving the use of paint, plastics, electro plating and metal finishes. Familiarity with water chemistry and the use and effects of detergents is necessary. Applications are invited from chemists having a University degree and with at least five years' experience as an industrial chemist in a manufacturing industry. (Ref.: 28/123.) Salaries and pensions benefits, by arrangement, depending on age and experience. Applications should be addressed to: The Appointments Secretary, Industrial Administration Ltd., 18 Thurlow Place, London, S.W.7. Applicants are assured that their applications will be treated in confidence and that no information will be passed to the client without permission.

**Methods Engineer** required, age 25-35, with engineering apprenticeship and O.N.C. Experience in component manufacture and assembly including dip and spray enamelling of a wide variety of sheet steel products on a job-batch production basis. Knowledge of shop layout, progressing, planning and operation scheduling an advantage. Good salary and prospects. Apply, stating age and experience to: The Personnel Manager, G. A. Harvey & Co. (London) Ltd., Woolwich Road, Charlton, London, S.E.7.

**Tool Controller** required. Responsibilities involve tool sub-contracting; tool estimating, and progressing of tools through all stages, i.e. jig and tool design office; tool-room and sub-contractors. This is an executive position ultimately leading to control of jig and tool design office and tool-room under the direct supervision of the Production Manager. Applicants should be between 35 and 45 years of age and should have attained an educational standard of H.N.C. level or its equivalent. They should have had considerable experience of tool design and production, in the aircraft industry and previously have held a similar position in this field.

**Production Engineer** required. This position involves the responsibility of planning and the drawing up of production programmes; ratefixing, etc. This is an executive position under the direct control of the Production Manager. Applicants should be between 35 and 45 years of age and should have extensive experience in the production field of the aircraft industry, and previously have held a similar position. Please write giving details of age, qualifications, experience and salary required to: Box No. 1819, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Engineering Executive** with business background required by expanding Company for top level position controlling modern machine shop in Leeds. Qualifications: Capable negotiating and obtaining sub-contract work from new sources and maintaining existing connections; acquainted vertical and horizontal boring, turning, etc.; ability control 30-40 men. High remuneration, expenses. Write in strict confidence to: Managing Director, Boston Marine & General Engineering Co. Ltd., Viceroy Works, Lov Fields Road, Leeds 12.

**Senior Production Engineer** (age 40-50) is required by Light Engineering Company in Sheffield. Applicants should have held a similar position in a department covering all aspects of production engineering and have had sound experience in practical engineering, methods study and related aspects, and practical costing. This is a position requiring a man with initiative, drive and a good personality. Applications should contain full details of theoretical and practical training, experience and salary range required to Box 1820, I.Prod.E., 10 Chesterfield Street, Mayfair, London, W.1.

**Senior Appointment.** J. Sainsbury Limited, food manufacturers and distributors, invite applications to fill a senior appointment in their expanding Work Study Department at Blackfriars. Applicants must have received a sound and comprehensive training in all aspects of method study and work measurement and have had practical experience in a responsible position. They should also have a knowledge of the use of work study in cost control, planning and maintenance. Some knowledge of statistics would be an advantage. Their practical experience should have comprised a considerable amount of method study including planning large scale investigations, organising the work of a team and the preparation of reports for senior management. Age 30 to 40 years. Educational qualifications—University Degree or equivalent. Essential qualifications for this permanent post, which offers excellent prospects, are qualities of leadership and a personality acceptable at all levels. Salary will be subject to negotiation but not less than £1,400 per annum is envisaged. Applications giving details of age, education, qualifications and experience should be sent to: The Personnel Manager (S.W.S.), J. Sainsbury Limited, Stamford House, Stamford Street, London, S.E.1.

**Management Consultancy.** We are adding to our established team of management consultants and have immediate need of a qualified man to take part in production engineering and work study assignments. The Production Engineer we need is a qualified engineer (not less than H.N.C. level). 30-42 years of age, well educated and equally at home with top management and the rank and file. His experience must include :— (a) managerial or equivalent responsibilities; (b) thorough training in the techniques of work study and production planning and control and (c) experience in all respects of production engineering. If you are interested in work that offers variety, challenge, satisfaction and a good living, write (in complete confidence) giving details of yourself, your education, experience and salaries to : M.W.M. (London) Limited, 121 Queen Victoria Street, E.C.4.

#### **EDUCATIONAL APPOINTMENT**

**Work Study School, Cranfield, Bletchley, Bucks.**

**Work Study Practitioners**, with practical experience in application of method study and work measurement, required to help conduct work study courses. Special recommendations would be experience in office investigations; use of work study for cost control and setting-up financial incentives; maintenance; analytical estimating. Importance is attached to character, initiative, capacity for original thought, and ability to work in progressive team. Teaching experience, though desirable, is not essential. Salary up to £1,650 p.a., according to experience and qualifications. Child allowance £50 p.a. each child, is payable and F.S.S.U. superannuation scheme operates. Statement of personal details and appointments held should be sent to The Recorder, The College of Aeronautics, Cranfield, Bletchley, Bucks.



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